

10/587,872

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NEWS 5 AUG 24 CA/Caplus enhanced with legal status information for  
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feature for sorting BLAST answer sets  
NEWS 14 DEC 02 Derwent World Patent Index: Japanese FI-TERM  
thesaurus added  
NEWS 15 DEC 02 PCTGEN enhanced with patent family and legal status  
display data from INPADOCDB  
NEWS 16 DEC 02 USGENE: Enhanced coverage of bibliographic and  
sequence information  
NEWS 17 DEC 21 New Indicator Identifies Multiple Basic Patent  
Records Containing Equivalent Chemical Indexing  
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NEWS 20 FEB 16 STN Express Maintenance Release, Version 8.4.2, Is  
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of Author Abstracts  
NEWS 22 FEB 16 New FASTA Display Formats Added to USGENE and PCTGEN  
NEWS 23 FEB 16 INPADOCDB and INPAFAMDB Enriched with New Content  
and Features  
NEWS 24 FEB 16 INSPEC Adding Its Own IPC codes and Author's E-mail  
Addresses

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FILE LAST UPDATED: 2 Mar 2010 (20100302/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

CPlus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s organoborane and organoaluminum  
751 ORGANOBORANE  
6890 ORGANOALUMINUM  
L1 13 ORGANOBORANE AND ORGANOALUMINUM

=> d 11 1- ibib abs hitstr  
 YOU HAVE REQUESTED DATA FROM 13 ANSWERS - CONTINUE? Y/(N):y

L1 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2004:430645 CAPLUS  
 DOCUMENT NUMBER: 141:8475  
 TITLE: Method for preparing high 1,4-cis polybutadiene having controlled cold flow  
 INVENTOR(S): Jang, Young Chan; Kim, Pil Sung; Han, Shin; Kwag, Gwang Hoon; Lee, Seung Hwon  
 PATENT ASSIGNEE(S): Korea Kumho Petrochemical Co., Ltd., S. Korea  
 SOURCE: U.S. Pat. Appl. Publ., 8 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040102589	A1	20040527	US 2003-653542	20030902
US 6908975	B2	20050621		
KR 2004044763	A	20040531	KR 2002-72934	20021122
PRIORITY APPLN. INFO.:			KR 2002-72934	A 20021122
OTHER SOURCE(S):	MARPAT 141:8475			

AB The present invention relates to a method for preparing a high 1,4-cis polybutadiene having a controlled cold flow and, more particularly, to a novel method for preparing a high 1,4-cis polybutadiene having a controlled cold flow that involves initiating polymerization of a 1,3-butadiene in the presence of a non-polar solvent using, as a polymerization catalyst, a complex prepared by mixing a neodymium compound with or without a conjugated diene compound, a halogenated organoaluminum compound or a halogenated organic compound, and an organoaluminum compound irrespectively of the addition order of the catalyst; and adding an organoborane compound as a cold flow controller of 1,4-cis polybutadiene after a predetd. time of the polymerization Accordingly, a high 1,4-cis polybutadiene having an efficiently controlled cold flow can be prepared without causing a significant increase in the Mooney viscosity (mol. weight), an odor (bad smell), and a reduction in 1,4-cis content and polymerization yield.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)  
 REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2003:511382 CAPLUS  
 DOCUMENT NUMBER: 139:85799  
 TITLE: Organoborane lewis acidic polymerization catalyst activators for olefin polymerization  
 INVENTOR(S): Xu, Wei  
 PATENT ASSIGNEE(S): Nova Chemicals (International) S.A., Switz.  
 SOURCE: PCT Int. Appl., 30 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003054033      A1      20030703      WO 2002-CA1836      20021128
W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY,
    KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
    FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
    CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2364756      A1      20030610      CA 2001-2364756      20011210
US 20030144435  A1      20030731      US 2002-301377      20021121
US 6794329      B2      20040921
AU 2002366696   A1      20030709      AU 2002-366696      20021128
EP 1451229      A1      20040901      EP 2002-805237      20021128
R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
PRIORITY APPLN. INFO.:      CA 2001-2364756      A      20011210
                                WO 2002-CA1836      W      20021128

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S):      MARPAT 139:85799
AB  A two component catalyst activator comprises (A) lewis acidic organoboron
    (or an organoaluminum) component; and (B) a component defined by
    the formula ASO3R wherein A = pseudo cationic group and R = a hydrocarbyl
    or substituted hydrocarbyl. The catalyst activator is used in combination
    with a transition metal catalyst for the polymerization of olefins. The
catalyst
    activator provides improved catalyst activities. It is especially useful in
    solution polymers because of desirable solubility characteristics in
    comparison to
    the borate salts used in prior activators.
REFERENCE COUNT:      3      THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1  ANSWER 3 OF 13  CAPLUS  COPYRIGHT 2010 ACS ON STN
ACCESSION NUMBER:      2003:67244  CAPLUS
DOCUMENT NUMBER:      139:6420
TITLE:      Novel heterobimetallic catalysts for asymmetric
    Michael reactions
AUTHOR(S):      Velmathi, S.; Swarnalakshmi, S.; Narasimhan, S.
CORPORATE SOURCE:      T.R. Govindachari Centre for Natural Products, SPIC
    Science Foundation, Chennai, 600 032, India
SOURCE:      Tetrahedron: Asymmetry (2003), 14(1), 113-117
    CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER:      Elsevier Science Ltd.
DOCUMENT TYPE:      Journal
LANGUAGE:      English
OTHER SOURCE(S):      CASREACT 139:6420
AB  The newly developed chiral catalysts based on organoborane and
    organoaluminum complexes show opposite enantioselectivity in
    Michael addition reactions of cyclic enones and malonates resulting in the
    production of both enantiomers of products in good chemical yield and
    enantiomeric excess. 27Al NMR studies showed the formation of different
    types of complexes for these catalysts and the enantioselectivity was
    found to be dependent on the nature of the aluminum complex formed. Scope
    of the reaction was extended to other Michael donors such as nitro alkanes
    and thiols.
OS.CITING REF COUNT:      20      THERE ARE 20 CAPLUS RECORDS THAT CITE THIS

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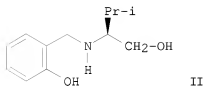
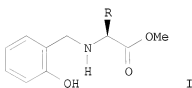
REFERENCE COUNT: 26 RECORD (20 CITINGS)  
THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2002:963731 CAPLUS  
DOCUMENT NUMBER: 138:25082  
TITLE: Polymerization of  $\alpha$ -olefins with non-metallocene  
catalysts based on Group VII transition metal  
complexes of oligo(pyrazolyl)borate ligands  
INVENTOR(S): Fujisawa, Kiyoshi; Nabika, Masaaki  
PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan  
SOURCE: Eur. Pat. Appl., 32 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1266911	A1	20021218	EP 2002-12927	20020611
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003064123	A	20030305	JP 2002-80617	20020322
JP 3932940	B2	20070620		
JP 2003064122	A	20030305	JP 2002-80618	20020322
JP 3932941	B2	20070620		
SG 98056	A1	20030820	SG 2002-3374	20020607
CN 1390864	A	20030115	CN 2002-122761	20020611
CN 1302026	C	20070228		
US 20030032743	A1	20030213	US 2002-166379	20020611
US 6881802	B2	20050419		
PRIORITY APPLN. INFO.:			JP 2001-178252	A 20010613
			JP 2001-178253	A 20010613
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT				
OTHER SOURCE(S): MARPAT 138:25082				
AB A polymerization catalyst was obtained by contacting a Group VII transition metal complex, specifically manganese complex, with an oligo(pyrazolyl)borate ligand, such as hydrotris(3,5-diisopropyl-1-pyrazolyl)borate, with a cocatalyst comprising organoaluminum, aluminosilane or organoborane compound. Thus, ethylene and 1-hexene was copolymerized in the presence of 1.0 $\mu$ mol chloro[hydrotris(3-tert-butyl-5-isopropyl-1-pyrazolyl)borato]manganese (preparation given, x-ray structurally characterized), 0.25 mmol triisobutylaluminum and 6.0 $\mu$ mol triphenylcarbenium tetrakis(pentafluorophenyl)borate at 60° for 60 min to yield ethylene/1-hexene copolymer with 23.7 short chain branches per 1000 carbons, m.p. 109.5°, and activity 2.0 $\times$ 105 mol[Mn]/h.				
REFERENCE COUNT:	7	THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L1 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2002:114430 CAPLUS  
DOCUMENT NUMBER: 137:325205  
TITLE: Novel chiral switching ligands for enantioselective  
asymmetric reductions of prochiral ketones  
AUTHOR(S): Narasimhan, S.; Swarnalakshmi, S.; Balakumar, R.;  
Velmathi, S.

CORPORATE SOURCE: Centre for Natural Products, SPIC Science Foundation,  
Guindy, 600 032, India  
SOURCE: Molecules [online computer file] (2001), 6(12),  
988-995  
CODEN: MOLEFW; ISSN: 1420-3049  
URL: <http://www.mdpi.org/molecules/papers/61200988.pdf>  
PUBLISHER: Molecular Diversity Preservation International  
DOCUMENT TYPE: Journal; (online computer file)  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 137:325205  
GI



AB The newly developed chiral ligands I and II show opposite enantioselectivity in the asym. reduction of prochiral ketones resulting in the production of either enantiomer depending on the metal complex with high enantiomeric excess.

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:60387 CAPLUS

DOCUMENT NUMBER: 126:89426

ORIGINAL REFERENCE NO.: 126:17271a,17274a

TITLE: Group III: Boron, aluminum, gallium, indium, and thallium

AUTHOR(S): Almond, M. J.

CORPORATE SOURCE: University Reading, UK

SOURCE: Organometallic Chemistry (1996), 25, 50-84

CODEN: OGMCAQ; ISSN: 0301-0074

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review containing 116 refs.

REFERENCE COUNT: 116 THERE ARE 116 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1989:191879 CAPLUS  
DOCUMENT NUMBER: 110:191879  
ORIGINAL REFERENCE NO.: 110:31840h,31841a  
TITLE: A convenient route to  $\alpha$ -alkoxy ester from olefin  
via organoborane-catalyzed hydroalumination  
AUTHOR(S): Maruoka, Keiji; Shinoda, Kiyotaka; Yamamoto, Hisashi  
CORPORATE SOURCE: Dep. Appl. Chem., Nagoya Univ., Nagoya, 464, Japan  
SOURCE: Synthetic Communications (1988), 18(10), 1029-33  
CODEN: SYNCAV; ISSN: 0039-7911  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 110:191879  
AB Organoborane-catalyzed hydroalumination of olefins with  
dichloroaluminum hydride and subsequent functionalization of the resulting  
organoaluminum with MeOCHClCO<sub>2</sub>Me afforded the corresponding  
 $\alpha$ -methoxy esters in good yield. Thus, 1-dodecene gave 70%  
n-C<sub>12</sub>H<sub>25</sub>CH(OMe)CO<sub>2</sub>Me.  
OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)

L1 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1984:570672 CAPLUS  
DOCUMENT NUMBER: 101:170672  
ORIGINAL REFERENCE NO.: 101:25803a,25806a  
TITLE: Asymmetric reduction of ketones with  
B-(cis-10-pinanyl)-9-borabicyclo[3.3.1]nonane.  
Observation of a change in enantioselection between  
similar organoborane and  
organoaluminum reagents  
AUTHOR(S): Midland, M. Mark; McLoughlin, Jim I.  
CORPORATE SOURCE: Dep. Chem., Univ. California, Riverside, CA, 92521,  
USA  
SOURCE: Journal of Organic Chemistry (1984), 49(21), 4101-2  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Prochiral ketones of intermediate steric bulk are reduced in moderate to  
good enantiomeric excess with B-(10-pinanyl)-9-borabicyclo[3.3.1]nonane  
(cis-myrtanylborane). Selectivities and rates of reduction are increased at  
elevated pressures (up to 5000 atm). Studies with models suggest reduction  
occurs via competing cyclic transition states. Enantiomeric purities and  
absolute configurations of the product alcs. are compared with a closely  
related Al reagent. The B and Al reagents lead to alcs. of the opposite  
absolute configuration.  
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

L1 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1984:438995 CAPLUS  
DOCUMENT NUMBER: 101:38995  
ORIGINAL REFERENCE NO.: 101:6111a,6114a  
TITLE: Acetylene high polymers  
PATENT ASSIGNEE(S): Showa Denko K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59006206	A	19840113	JP 1982-115592	19820705
PRIORITY APPLN. INFO.:			JP 1982-115592	19820705

AB Acetylene high polymers are prepared in the presence of a highly active catalyst system comprising [A] a solid catalyst component containing Mg and  $\geq 1$  atom selected from Ti, V, or Zr and [B] an organic Al compound or organoborane. Thus, 50 g  $\text{MgCl}_2$  and 10 g vanadyl butyrate [31406-56-1] were combined to give the solid catalyst component (I). Then, 0.9 kg/cm<sup>2</sup> acetylene was polymerized in the presence of 200 mL PhMe, 1 g I and 1 mL  $\text{Et}_3\text{Al}$  [97-93-8] to give 3 g powdery polyacetylene (II) [25067-58-7]. The catalyst activity was 300 g II/g V.

L1 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1979:167703 CAPLUS  
 DOCUMENT NUMBER: 90:167703  
 ORIGINAL REFERENCE NO.: 90:26623a,26626a  
 TITLE: Part I. Stereochemistry and mechanism of the hydroboration of olefins and of the subsequent protonolysis of organoboranes; Part II. A new oxidation procedure for organoaluminum compounds  
 AUTHOR(S): Newton, Ray Jackson, Jr.  
 CORPORATE SOURCE: Univ. Tennessee, Knoxville, TN, USA  
 SOURCE: (1978) 93 pp. Avail.: Univ. Microfilms Int., Order No. 7903454  
 From: Diss. Abstr. Int. B 1979, 39(8), 3843  
 DOCUMENT TYPE: Dissertation  
 LANGUAGE: English  
 AB Unavailable

L1 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1971:100139 CAPLUS  
 DOCUMENT NUMBER: 74:100139  
 ORIGINAL REFERENCE NO.: 74:16309a,16312a  
 TITLE: Reaction of isonitriles with boranes  
 AUTHOR(S): Casanova, Joseph, Jr.  
 CORPORATE SOURCE: Dep. Chem., California State Coll., Los Angeles, CA, USA  
 SOURCE: Isonitrile Chem. (1971), 109-31. Editor(s): Ugi, Ivar. Academic: New York, N. Y.  
 CODEN: 23CIAJ  
 DOCUMENT TYPE: Conference; General Review  
 LANGUAGE: English  
 AB Isonitrile-organoborane reactions, isonitrile-organaluminum and cyanide-organaluminum reactions, cyanide-organoborane reactions, and the reactions of CO and other Lewis bases with organoboranes were reviewed with 71 refs.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L1 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1970:415492 CAPLUS  
 DOCUMENT NUMBER: 73:15492  
 ORIGINAL REFERENCE NO.: 73:2591a,2594a  
 TITLE: Alternating copolymers  
 INVENTOR(S): Hirooka, Masaaki; Kimura, Fumiyuki; Yasui, Seimei; Mashita, Kentaro  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.  
 SOURCE: Ger. Offen., 39 pp.

DOCUMENT TYPE: CODEN: GWXXBX  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1 German  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1949370	B2	19790405	DE 1969-1949370	19690930
DE 1949370	C3	19791122		
JP 48029393	B	19730910	JP 1968-70976	19680930
US 3700648	A	19721024	US 1969-858153	19690915
BE 739528	A	19700302	BE 1969-739528	19690929
NL 6914711	A	19700401	NL 1969-14711	19690929
NL 158506	B	19781115		
FR 2019187	A5	19700626	FR 1969-33097	19690929
GB 1280030	A	19720705	GB 1969-1280030	19690930
			JP 1968-70976	A 19680930

## PRIORITY APPLN. INFO.:

AB Alternating copolymers are prepared from acrylic compds., such as amides or nitriles, and  $\alpha$ -olefins, other olefins, nonconjugated polyenes, acetylenic compds., or nonconjugated unsatd. compds. containing carbonyl or thiocarbonyl groups in the presence of catalysts prepared in the presence of  $\geq 1$  acrylic compound and containing organoaluminum or organoborane halides or their complexes, and a halo, alkoxy,  $\beta$ -diketo, or acyloxy compound of a Group IVA, VA, VIA, or VIII transition metal. Typical copolymers were prepared from styrene and Me acrylate, Me methacrylate, or acrylonitrile in the presence of Et3Al2Cl3 and VOC13. The alternating copolymers are obtained only when the catalyst components are mixed in the presence of the acrylic compound. Small amts. of organic peroxides, such as Bz2O2, may also be added to promote the polymerization.

These catalysts give good yields of the desired alternating copolymers.  
 OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L1 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1962:442965 CAPLUS  
 DOCUMENT NUMBER: 57:42965  
 ORIGINAL REFERENCE NO.: 57:8615f-i  
 TITLE: Organoboranes  
 INVENTOR(S): Ashby, Eugene C.  
 PATENT ASSIGNEE(S): Ethyl Corp.  
 SOURCE: 3 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3023248		19620227	US 1959-804078	19590406
DE 1137015			DE	
GB 899158			GB	
			US	19590406

## PRIORITY APPLN. INFO.:

AB Organoboranes are prepared from organooxyboroxine (ROBO)3 and an organoaluminum compound at 20-50° in a reactor equipped with internal agitation and a means for external cooling. Method (1) (MeOBO)3 34.8 is slowly added to Et3Al 68.4 parts with air cooling and the mixture distilled to give 70% Et3B. Method (2). Et3Al 342 dissolved in mineral oil 100 (ether or amine solvents work equally well) is added to (MeOBO)3 173.5

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parts over 2 hrs. with dry ice cooling. Method (3). (MeOBO)3 35 is added to ethylaluminum sesquihalide 160 parts with air cooling. Trioctylborane is produced by method (1) from (EtOBO)3 216 and trioctyl aluminum 1098 parts at 50°, and triecicosylborane from (PhOBO)3 and 10% excess triecicosyl aluminum at 100°. By method (2), PH3Al 1032 and (MeOBO)3 209 parts give Ph3B. If the organoborane is distilled from the mixture, the residue hydrolyzed in aqueous HCl, filtered, and distilled, the alc. is recovered. When the latter reacts with borax, is filtered, boric oxide added to the alkyl borate, and heated to 180° 5 hrs., the trialkoxy boroxine is formed.

=> d his

(FILE 'HOME' ENTERED AT 16:49:59 ON 03 MAR 2010)

FILE 'CAPLUS' ENTERED AT 16:50:14 ON 03 MAR 2010  
L1 13 S ORGANOBOBORANE AND ORGANOALUMINUM

=> log y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST

XXXXXXXXXXXXXXXXXXXXXX
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-10.20	-10.20

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